

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1 and 2 without prejudice or disclaimer of their subject matter, amend claims 3, 5, 7-10, 13, 14, 16, and 18, and add new claims 21-28 as indicated below. This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)
2. (Canceled)
3. (Currently Amended) ~~[[The]]~~ A polishing member according to claim 1 comprising:
photocatalyst particles that exhibit photocatalysis on light irradiation; and
a support material that supports the photocatalyst particles, wherein the photocatalyst particles contain titanium, oxygen, and at least one of nitrogen and sulfur.
4. (Original) The member according to claim 3, wherein a concentration of nitrogen and/or sulfur in the photocatalyst particles falls within a range of 0.05 atomic % to 10 atomic %.
5. (Currently Amended) ~~[[The]]~~ A polishing member according to claim 1 comprising:
photocatalyst particles that exhibit photocatalysis on light irradiation; and

a support material that supports the photocatalyst particles, wherein each of the photocatalyst particles supports at least one metal element selected from the group consisting of platinum, nickel, copper, silver, gold, and niobium on a surface thereof.

6. (Original) The member according to claim 5, wherein an area ratio of surfaces of the photocatalyst particles that are covered with the metal element with respect to whole surfaces of the photocatalyst particles falls within a range of 5% to 90%.

7. (Currently Amended) The member according to claim [[1]] 3, further comprising inorganic particles that are supported by the support material together with the photocatalyst particles and contain at least one material selected from the group consisting of alumina, silica, ceria, carbon, and manganese dioxide.

8. (Currently Amended) The member according to claim [[1]] 3, wherein particle diameters of the photocatalyst particles distribute within a range of 5 nm to 100 nm.

9. (Currently Amended) The member according to claim [[1]] 3, wherein a concentration of the photocatalyst particles in the member falls within a range of 10% by volume to 90% by volume.

10. (Currently Amended) A method of manufacturing a semiconductor device, comprising:

polishing a surface of a workpiece that is to be used as at least a portion of the semiconductor device with a polishing member with a fluid interposed between the polishing member and the surface of the workpiece while performing light irradiation onto the polishing member, the polishing member comprising photocatalyst particles that exhibit photocatalysis on the light irradiation and a support material that supports the photocatalyst particles, wherein the fluid does not contain oxidants.

11. (Original) The method according to claim 10, wherein the fluid consists essentially of water or a mixture of water and pH adjuster.

12. (Original) The method according to claim 10, wherein the light irradiation includes irradiating the polishing member with ultraviolet light and/or visible light.

13. (Currently Amended) The method according to claim 10, wherein the photocatalyst particles contain at least one compound selected from the group consisting of titanium oxide, tin oxide, niobium oxide, iron oxide, cadmium selenide, and cadmium sulfide.

14. (Currently Amended) ~~[[The]]~~ A method according to claim 10 of manufacturing a semiconductor device, comprising:

polishing a surface of a workpiece that is to be used as at least a portion of the semiconductor device with a polishing member with a fluid interposed between the polishing member and the surface of the workpiece while performing light irradiation onto the polishing member, the polishing member comprising photocatalyst particles that exhibit photocatalysis on

the light irradiation and a support material that supports the photocatalyst particles, wherein the photocatalyst particles contain titanium, oxygen, and at least one element of nitrogen and sulfur.

15. (Original) The method according to claim 14, wherein a concentration of nitrogen and/or sulfur in the photocatalyst particles falls within a range of 0.05 atomic % to 10 atomic %.

16. (Currently Amended) [[The]] A method according to claim 10 of manufacturing a semiconductor device, comprising:

polishing a surface of a workpiece that is to be used as at least a portion of the semiconductor device with a polishing member with a fluid interposed between the polishing member and the surface of the workpiece while performing light irradiation onto the polishing member, the polishing member comprising photocatalyst particles that exhibit photocatalysis on the light irradiation and a support material that supports the photocatalyst particles, wherein each of the photocatalyst particles supports at least one metal element selected from the group consisting of platinum, nickel, copper, silver, gold, and niobium on a surface thereof.

17. (Original) The method according to claim 16, wherein an area ratio of surfaces of the photocatalyst particles that are covered with the metal element with respect to whole surfaces of the photocatalyst particles falls within a range of 5% to 90%.

18. (Currently Amended) The method according to claim 10, wherein the polishing member further comprises inorganic particles that are supported by the support material together

with the photocatalyst particles and contain at least one material selected from the group consisting of alumina, silica, ceria, carbon, and manganese dioxide.

19. (Original) The method according to claim 10, wherein particle diameters of the photocatalyst particles distribute within a range of 5 nm to 100 nm.

20. (Original) The method according to claim 10, wherein a concentration of the photocatalyst particles in the member falls within a range of 10% by volume to 90% by volume.

21. (New) The member according to claim 5, further comprising inorganic particles that are supported by the support material together with the photocatalyst particles and contain at least one material selected from the group consisting of alumina, silica, ceria, carbon, and manganese dioxide.

22. (New) The member according to claim 5, wherein particle diameters of the photocatalyst particles distribute within a range of 5 nm to 100 nm.

23. (New) The member according to claim 5, wherein a concentration of the photocatalyst particles in the member falls within a range of 10% by volume to 90% by volume.

24. (New) The method according to claim 10, wherein the fluid does not contain abrasive particles.

25. (New) The method according to claim 10, wherein the photocatalyst particles contain titanium, oxygen, and at least one element of nitrogen and sulfur.

26. (New) The method according to claim 10, wherein each of the photocatalyst particles supports at least one metal element selected from the group consisting of platinum, nickel, copper, silver, gold, and niobium on a surface thereof.

27. (New) The method according to claim 14, wherein the light irradiation includes irradiating the polishing member with visible light.

28. (New) The member according to claim 5, wherein the photocatalyst particles contain at least one compound selected from the group consisting of titanium oxide, tin oxide, niobium oxide, iron oxide, cadmium selenide, and cadmium sulfide.